



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
727
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- QTS)

RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0773687	WC0773700	WC0725908
Sample Date		Client Info		24 Jun 2024	09 Apr 2024	16 Apr 2023
Machine Age	hrs	Client Info		250	0	0
Oil Age	hrs	Client Info		0	250	200
Filter Age	hrs	Client Info		0	250	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	ABNORMAL	SEVERE

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	10	12	8
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	4	2
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	<1	0	<1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

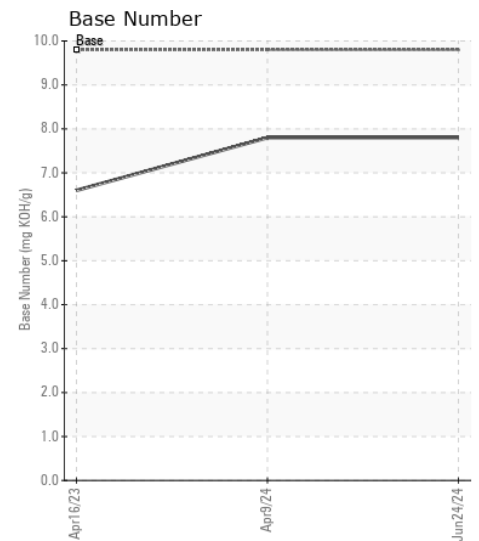
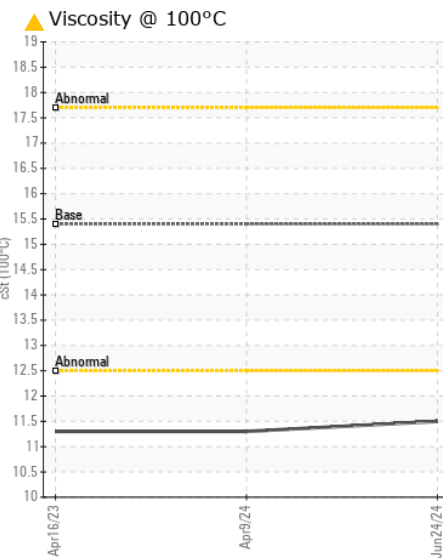
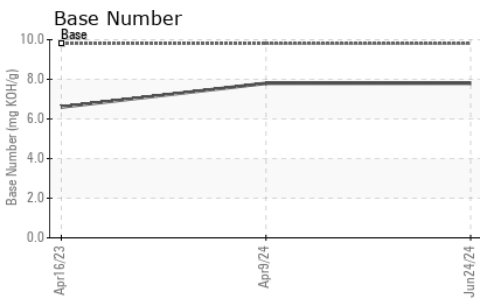
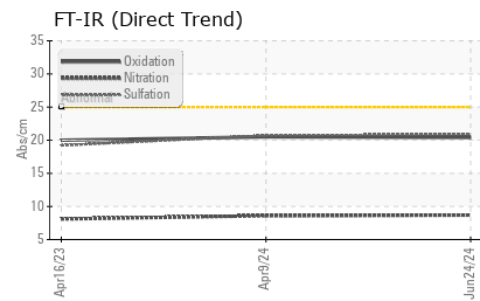
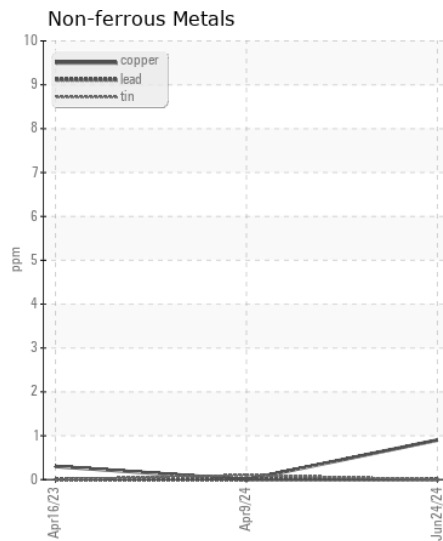
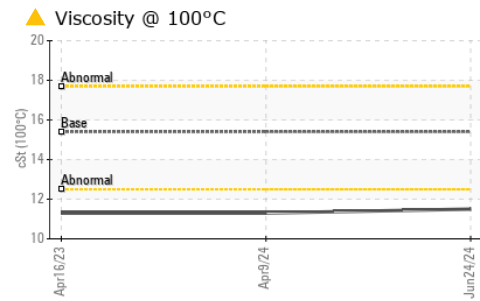
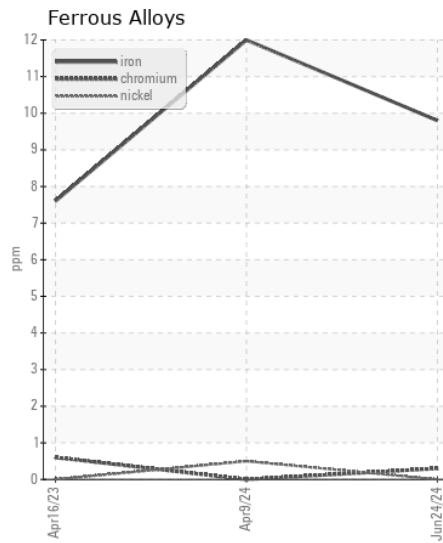
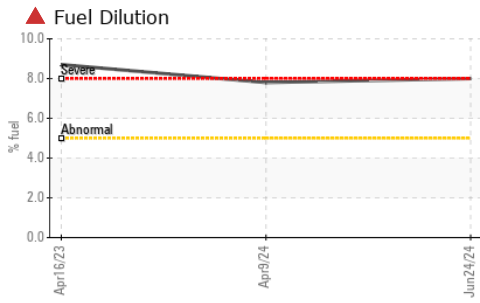
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>25	3	3	2
Potassium	ppm	ASTM D5185m	>20	0	2	0
Fuel	%	ASTM D3524	>5	▲ 8.0	▲ 7.8	▲ 8.7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	8.7	8.6	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.9	20.7	19.2
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		1	2	0
Boron	ppm	ASTM D5185m	0	1	4	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	53	54	54
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	898	887	870
Calcium	ppm	ASTM D5185m	1070	1018	963	978
Phosphorus	ppm	ASTM D5185m	1150	969	973	945
Zinc	ppm	ASTM D5185m	1270	1188	1165	1147
Sulfur	ppm	ASTM D5185m	2060	3342	3372	3443
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.4	20.5	20.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.8	7.8	6.6
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.5	▲ 11.3	▲ 11.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0773687

Lab Number : 06219095

Unique Number : 11097292

Test Package : FLEET (Additional Tests: PercentFuel)

Received : 24 Jun 2024

Tested : 27 Jun 2024

Diagnosed : 27 Jun 2024 - Wes Davis

AREA TRANSPORTATION AUTHORITY

44 TRANSPORTATION CENTER

JOHNSONBURG, PA

US 15845

Contact: Mike Agosti

magosti@rideata.com

T: (814)965-1265

F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)